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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,374	02/19/2004	Wenjie Deng	3002 P268AUS	3567
30497 7590 04/19/2010 FLYNN, THIEL, BOUTELL & TANIS, P.C. 2026 RAMBLING ROAD KALAMAZOO, MI 49008-1631				
EXAMINER				
BUL VY Q				
ART UNIT		PAPER NUMBER		
3773				
MAIL DATE		DELIVERY MODE		
04/19/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/782,374

**Applicant(s)**

DENG ET AL.

**Examiner**

Vy Q. Bui

**Art Unit**

3773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-29 is/are allowed.
- 6) ☒ Claim(s) 30-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 6-11 directed to a sub-combination have been withdrawn and canceled from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention. Election was made **without** traverse for further examination of the invention as recited in claims 12-32 in the reply filed on 2/5/2009.

### ***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 30-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Hilscher et al-7,086,111 B2.

As to claims 30-31, Hilscher-'111 discloses a powered tooth brush / cutting head comprising substantially all the structural limitations in the claims including shaft 49 (Fig. 25), coupling assembly including elements (2, 54) having a coupling bore to receive shaft 28 of a powered tool (Fig. 25), transponder 19 and ring-shaped coil 44 embedded in ring 8 (Fig. 20, 14, 17).

Notice that the "surgical tool" and "cutting head" in the preamble indicate intended use of a device or an component of the device, but do not offer any structural limitation to make a structural difference between the device of Hilscher-'111 and the device in the present invention. Further, Hilscher-'111 device can be considered as "a surgical tool" when a dentist uses it in the mouth of a patient (surgical site defined in the body of a patient) to clean a tooth in

an oral surgical procedure. Further more, the tooth brush head of Hilscher-'111 device is inherently capable of cutting a gum tissue if one desires to do so by pressing the brush against a gum tissue hard and long enough to cause a gum bleeding, therefore it is reasonable to consider the tooth brush head of Hillscher-'111 as "a cutting head" as recited in the claims.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 30-32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rexroth-5,269,794 (Rexroth) discloses in view of Gray-6,019,745 (Gray).

As to claim 30-32, Rexroth (F 4; C 3, L 37-59; C 9, L 15-91, for example) discloses cutting accessory (70, 71) for attachment to powered surgical tool 11 for cutting tissue, comprising shaft 74 designed for cutting tissue; a coupling designed to removably attach said shaft 74 to powered surgical tool 11 and to facilitate a transfer of power from the powered surgical tool 11 to said shaft 74, a cutting head or burr (73) attached to or integrally formed with a distal end of said shaft 74.

Rexroth discloses magnetic chip 92 (C 3, L 37-59; C 9, L 15-91) for communication between cutting accessory (70, 71) and powered surgical tool 11. Rexroth does not disclose chip 92 as a transponder comprising a solid state chip and an attached length of electrical conductor / coil embedded within a solid substrate.

Gray discloses a medical device that transmits data via magnetic technology. Gray also states that a transponder 15 that utilizes antennae (16, 17) resonating at radio frequencies could also be used (C3:L45-48; C7:L41-50) for storing and transmitting data. It would have

been obvious to one of ordinary skill in the art at the time of the invention to use a transponder and antenna device for storing and transmitting data instead of a magnetic chip. Gray shows that using a transponder with an antennae device is an equivalent device to a magnetic device to perform the same function of storing and transmitting data. These two devices (magnetic chip or transponder with an antennae) of storing and transmitting data were art-recognized equivalents at the time of the invention was made, therefore it would have been obvious to one of ordinary skill in the art to substitute each one for the other, since substitution of one device for another equivalent device well-recognized in the art would have yielded predictable results: to successfully storing and transmitting data.

***Allowable Subject Matter***

Claims 12-29 are allowed.

***Response to Amendment***

The amendment has further the prosecution of this application. However, after a very careful consideration, the finality of the previous "Final Office Action" is withdrawn. Claims 30-32 have been "non-finally" rejected so that the applicant can respond accordingly.

To expedite the prosecution of the present application, the examiner has initiated a telephonic interview with the applicant's representative, Mr. Tumm, on 4/15/2010 about claims 30-32. However, no agreement was finally reached.

Claims 12-29 are again considered as allowable in the present form. Any further amendment of these claims will require further consideration and next office action should be made final.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vy Q. Bui whose telephone number is 571-272-4692. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on 571-272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vy Q. Bui/  
Primary Examiner, Art Unit 3773